

What is claimed is:

1 1. A method of treating a neurological disorder in a human patient which
2 comprises administering to said human patient an effective amount of a composition comprising
3 a polypeptide comprising a sequence substantially equivalent to SEQ ID NO: 2.

1 2. The method of claim 1 wherein the composition further comprises a
2 pharmaceutically acceptable carrier.

1 3. The method of claim 1 wherein the composition is administered orally,
2 transdermally, intravenously, intrasynovially, intramuscularly, intraocularly, intranasally,
3 intrathecally, or topically.

1 4. The method of claim 1 wherein administering the composition is in
2 conjunction with another method of treating said neurological disorder.

1 5. The method of claim 1, wherein the neurological disorder is caused by
2 oxidative stress response in neuronal tissue.

1 6. The method of claim 1, wherein the neurological disorder is caused by the
2 activation of a neuron specific, stress-activated protein kinase.

1 7. The method of claim 6, wherein the protein kinase is c-Jun amino-terminal
2 kinase 3.

1 8. The method of claim 1 wherein the neurological disorder is a disorder
2 selected from dementia, dementia of the Alzheimer's type, bipolar disorders, mood disorder with
3 depressive features, mood disorder with major depressive-like episode, mood disorder with
4 manic features, mood disorder with mixed features, substance-induced mood disorder and mood
5 disorder not otherwise specified (NOS), panic disorder without agoraphobia, panic disorder with
6 agoraphobia, agoraphobia without history of panic disorder, social phobia, posttraumatic stress
7 disorder, acute stress disorder, substance-induced anxiety disorder and anxiety disorder not
8 otherwise specified (NOS), dyskinesias and behavioral manifestations of mental retardation,
9 conduct disorder and autistic disorder.

1 9. The method of claim 8, wherein dementia is selected from the group
2 consisting of vascular dementia, dementia due to HIV disease, dementia due to head trauma,

3 dementia due to Parkinson's disease, dementia due to Huntington's disease, dementia due to
4 Pick's disease, dementia due to Creutzfeldt-Jakob disease, substance-induced persisting
5 dementia, dementia due to multiple etiologies and dementia not otherwise specified (NOS).

1 10. The method of claim 8, wherein said dementia is dementia of the
2 Alzheimer's type.

1 11. The method of claim 10, wherein dementia of the Alzheimer's type is
2 selected from the group consisting of dementia of the Alzheimer's type with early onset
3 uncomplicated, dementia of the Alzheimer's type with early onset with delusions, dementia of the
4 Alzheimer's type with early onset with depressed mood, dementia of the Alzheimer's type with
5 late onset uncomplicated, dementia of the Alzheimer's type with late onset with delusions and
6 dementia of the Alzheimer's type with late onset with depressed mood.

1 12. The method of claim 1, wherein the composition is administered in a
2 targeted drug delivery system.

1 13. The method of claim 12, wherein the targeted drug delivery system is a
2 liposome coated with an antibody that specifically targets neuronal tissue.

1 14. A method of treating Alzheimer's disease, stroke, amyotrophic lateral
2 sclerosis, age associated memory impairment or Parkinson's disease in a human subject, the
3 method comprising administering to said human an effective amount of a composition
4 comprising a polynucleotide having a sequence that is substantially equivalent to SEQ ID NO: 1.

1 15. The method of claim 14, wherein the composition is administered to the
2 subject's cells using a recombinant expression vector that comprises a sequence substantially
3 equivalent to SEQ ID NO: 1.

1 16. The method of claim 15, wherein administering the composition further
2 comprises:
3 removing stem cells from a subject's bone marrow;
4 introducing the recombinant expression vector into the removed stem cells; and
5 re-introducing the stem cells into the subject's bone marrow.

1 17. A method of treating a neurological disease in a human subject selected
2 from the group consisting of Alzheimer's disease, stroke, amyotrophic lateral sclerosis, age

3 associated memory impairment and Parkinson's disease, the method comprising administering to
4 said human an effective amount of a composition comprising a polypeptide having a sequence
5 that is substantially equivalent to SEQ ID NO: 2.

1 18. The method of claim 17 wherein the composition further comprises a
2 pharmaceutically acceptable carrier.

1 19. The method of claim 17 wherein the composition is administered orally,
2 transdermally, intravenously, intrasynovially, intramuscularly, intraocularly, intranasally,
3 intrathecally, or topically.

1 20. The method of claim 17 wherein the method is used in conjunction with
2 another method of treating said neurological disorder.